

The Health Communicator's Social Media Toolkit Table of Contents

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A guide to using social media to improve reach of health messages, increase access to your content, further participation with audiences and advance transparency to improve health communication efforts.

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The Health Communicator's Social Media Toolkit

This toolkit was developed by the Electronic Media Branch, Division of News and Electronic Media, Office of the Associate Director of Communication at the Centers for Disease Control and Prevention (CDC). It was designed to provide guidance and to the share lessons learned in more than three years of integrating social media into CDC health communication campaigns, activities and emergency response efforts. In this guide, you will find information to help you get started using social media—from developing governance to determining which channels best meet your communication objectives to creating a social media strategy. You will also learn about popular channels you can incorporate into your plan, such as blogs, video-sharing sites, mobile applications and RSS feeds. This toolkit is intended for a beginner audience, although some viewers with an intermediate level may find parts of the toolkit useful.

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SOCIAL MEDIA INTRODUCTION

Social Media Overview

In the last several years, the use of Facebook, YouTube, Twitter and other social media tools to disseminate health messages has grown significantly, and continues to trend upward. Using social media tools has become an effective way to expand reach, foster engagement and increase access to credible, science-based health messages. Social media and other emerging communication technologies can connect millions of voices to:

- Increase the timely dissemination and potential impact of health and safety information.
- Leverage audience networks to facilitate information sharing.
- Expand reach to include broader, more diverse audiences.
- Personalize and reinforce health messages that can be more easily tailored or targeted to particular audiences.
- Facilitate interactive communication, connection and public engagement.
- Empower people to make safer and healthier decisions.

Integrating social media into health communication campaigns and activities allows health communicators to leverage social dynamics and networks to encourage participation, conversation and community – all of which can help spread key messages and influence health decision making. Social media also helps to reach people when, where and how they want to receive health messages; it improves the availability of content and may influence satisfaction and trust in the health messages delivered. Likewise, tapping into personal networks and presenting information in multiple formats, spaces, and sources helps to make messages more credible and effective.

Over the years, the internet has changes people's relationships. Although doctors, nurses and other health professionals continue to be the first choice for most people with health concerns, online sources, including advice from peers, are a significant source of health information in the US. The social life of health information is dynamic. Two forces are driving online health conversations: 1) the availability of social media tools and 2) the increased desire and activity, especially among people living with chronic conditions, to connect with each other. (Fox, S. 2011).

Getting Your Feet Wet With Social Media

There are a variety of social media tools that can be utilized as part of an integrated health communications program. Tools range from easily downloadable products, such as buttons and badges, that can be implemented with minimal resources, to engagement tools that foster two-way communication and ongoing interaction, such as social network sites. Generally, as you progress from dissemination to engagement, more resources are needed for set-up and maintenance and the potential exists for greater participation, learning and sharing. We recommend giving careful consideration to the amount of resources and expertise required before deciding on the tools you may want to use. It is often beneficial to start with social media projects that may be considered low risk or use fewer resources at the outset, and then adopt more engaging tools that may require additional resources, expertise and leadership support. The table below documents specific social media tools, showing the continuum from dissemination to engagement, as well as the resources generally needed to implement health communications activities in many popular channels. The Social Media Tools section of this toolkit provides an overview of the tools and how they may help you meet your health communication objectives.

D		Resources					
SSI		Time/Staff		Cost			
Ĕ	Tools	Low	Moderate	High	Low	Moderate	High
E.	Buttons/Badges	✓			✓		
Dissemination	Content Syndication		✓		√		
- 1	RSS Feeds	✓			✓		
	Image Sharing	✓			✓		
	Podcast Posting	✓			✓		
	Online Video Sharing	√			√		
	Widgets ^{1, 2}	✓			✓		
	eCards ³	✓			✓		
	Micro-blogs		✓		✓		
•	Podcast Creation		✓			✓	
₽.	Online Video Production		✓			✓	
ga	Blogs		✓			✓	
Engagement	Mobile Technologies/ Texting		✓				✓
Ē	Virtual Worlds		✓				✓
7	Social Networks			✓	✓		

Indicates the posting of a widget, not production.

² Although the majority of widgets feature embedded content, some may contain an interactive component such as a quiz or a calculator.

³ Indicates the sending of an eCard, not production.

CDC's Top Lessons Learned from Using Social Media

During the last four years, the CDC social media team has learned a number of lessons we want to share with you. We hope these lessons will help you in developing, implementing and evaluating strong social media practices in your organization.

1. Make Strategic Choices and Understand the Level of Effort

Be strategic and follow demographic and user data to make choices based on audience, communications objectives and key messages. Be sure to assess the level of effort needed to maintain these channels such as time and commitment. Often, the resources needed to start and maintain social media projects are different than traditional communication efforts.

2. Go Where the People Are

Social media can help reach people where they are—millions of people use social media and spend a lot of time in these spaces learning, sharing and interacting. The popularity of key social media sites can be assessed by reviewing user statistics and demographics. Additionally, there are several niche social networking sites that target specific groups, like moms, physicians, or racial and ethnic groups; or sites that focus on a particular topic like travel or health.

3. Adopt Low-Risk Tools First

If you are starting out and finding resistance to using social media among your communication team or stakeholders, it may be helpful to first adopt low-risk solutions and later build on your successes. Products such as podcasts, videos and widgets are easily downloadable, and can be accessed from partner sites and posted on your website.

4. Make Sure Messages Are Science-based

As with any effective health communication, messages developed for dissemination through social media channels should be accurate, consistent and science-based.

5. Create Portable Content

Develop portable content—such as mobile applications, widgets and online videos—that can easily extend reach beyond your website to provide credible, timely, and accurate content for partners and others who want to help spread your health messages.

6. Facilitate Viral Information Sharing

Make it easy for people to share your messages and become health advocates. This can be accomplished

by using social media sites such as Facebook and YouTube that encourage sharing among users, or you can use tools with sharing features, such as widgets or eCards.

7. Encourage Participation

Social media allows for the tailoring of messages to help express empathy and acknowledge concern, promote action and listen to what people are saying about health-related topics in your community. Two-way conversations can foster meaningful communication with your audience that can help to facilitate relationships, sharing and interaction.

8. Leverage Networks

Social media allows people to easily establish and access networks on a regular basis. For example, Facebook reports the average Facebook user has 130 friends, or a network of 130 people with whom they can easily share information. The average user creates 90 pieces of content each month (Facebook 2011). By strategically leveraging these established networks, you can facilitate information sharing, and in turn, expand the reach of your health message.

9. Provide Multiple Formats

Providing messages in multiple formats increases accessibility, reinforces messages and gives people different ways to interact with your content based on their level of engagement and access to media.

10. Consider Mobile Technologies

More than ninety percent of adults in America subscribe to mobile services. Mobile technology is personal, portable and affordable. It allows the sharing of health information through text messaging, mobile websites and mobile applications.

11. Set Realistic Goals

Social media can raise awareness, increase a user's knowledge of an issue, change attitudes and prompt behavior change in dynamic, personalized and participatory ways. However, like traditional communication, social media alone may not be able to meet all of your communication goals or address all of the target audiences' needs. Set your goals accordingly.

12. Learn from Metrics and Evaluate Your Efforts

Digital communications offer many metrics that you can use to focus and improve your communications efforts. Metrics can help you to report usage, monitor trends and gauge the success of specific promotions or outreach efforts. Beyond simple metrics, social media efforts can also be evaluated by measuring the use of information, level of engagement with your content, and health impact. Monitoring trends and discussions on social media networks can also be a valuable way to better understand current interests,

knowledge levels and potential misunderstandings or myths about your health topic. Social media provides a direct feedback loop with your audience. By analyzing the feedback available through your social media tools, you can adjust your social media strategy, reshape messages, improve processes or shift tactics.

Developing a Social Media Strategy

A social media communication strategy is only one part of a larger communication effort, and should be integrated into your overall communication planning, activities and data collection. Therefore, over-arching communication goals should be considered when developing social media activities. The keys to effective social media outreach are identifying target audience(s), determining objective(s), knowing outlet(s) and deciding on the amount of resources (time and effort) that can be invested. However, with social media, more information can be obtained through a particular media channel to help build your strategy. For example, you can listen to conversations in real time, and identify influencers and fans. You can better understand audience needs in specific social media spaces and engage users in new ways.

Having clear communication objectives will help build your strategy. For example, you will probably need different strategies for each campaign. Because the objectives for each campaign are different, the way you exchange ideas, collaborate with partners, or encourage behavior change will also be different. Likewise, understanding your audience(s) will help you determine the channel selection and how you use specific channels. People access information in different ways, at different times, and for different reasons. Defining your audience needs using market research, metrics, and other data will be important to determining the channels you want to use. Each channel is different and has differing engagement, content, and community norms. Understanding the way people naturally use or participate in social media channels is also very helpful in determining your strategy.

Resources:

- Social Media Communications Strategy Worksheet on page 47
- Pew Internet and American Life Project: http://www.pewinternet.org/

Social Media Monitoring and Evaluation

As with any communication activity, it is important to evaluate your social media efforts. Ongoing evaluation and monitoring is a critical component of your communications strategy, helping to define measures of success based on your goals and objectives. Once you determine your communication objectives and specific social media tactics, you can determine how best to evaluate the process, outcomes and impact of your social media efforts. Monitoring trends and discussions in social media can help you to better understand current interests, knowledge levels and potential misunderstandings or myths about your topic. There are a variety of free tools available that can help with monitoring efforts, as well as paid services that offer more comprehensive monitoring capabilities.

Metrics can be used to help focus and improve your communication efforts. For social media, these can include traffic driven back to your website, influence and reach, as well as user interactions and engagement. The health impact of social media is harder to measure. More information is needed to understand how social media is impacting offline health behaviors. Detailed information related to the monitoring and evaluating of each tool is covered in the Social Media Tools section.

Governing Social Media Activities

It is important to establish structure, policies, and leadership at your organization to more effectively manage social media. At some point after you start using social media, it is a good idea to establish boards and councils to develop guidance, policies, standards and recommendations around its use at your organization. The resources below may guide you in establishing your own policies.

Governance Resources:

- Government Social Media's Web 2.0 Governance Policies and Best Practices Wiki provides links to official
 governance policies or best practices. http://govsocmed.pbworks.com/Web-2-0-Governance-Policies-and-Best-Practices
- SocialMediaGovernance.com's Online Database of Policies provides links to policies related to specific social media tool. http://socialmediagovernance.com/policies.php

SOCIAL MEDIA TOOLS

CDC uses social media to provide users with access to credible, science-based health information when, where and how users want it. A variety of social media tools are used to reinforce and personalize messages, reach new audiences, and build a communication infrastructure based on open information exchange. There are three key attributes of social media channels that are believed to make them highly effective as health communication tools.

- Personalization content tailored to individual needs
- Presentation timely and relevant content accessible in multiple formats and contexts
- Participation partners and the public who contribute content in meaningful ways

Additionally, many social media channels facilitate social engagement, viral sharing of information and trust.

There are a number of social media tools that you can utilize in your health communications activities—more than what is listed here, in fact. While we did not cover every social media tool available, this section of the toolkit should provide you with an understanding of a wide range of social media tools CDC and others in public health have successfully used in emergency response, major campaigns and other health communication, promotion and media efforts.

Buttons and Badges



CDC has a large gallery of buttons and badges, small web graphics or images, which can be utilized by partners to share health information about campaigns and causes online. Go to our gallery which includes graphics on a number of health topics, including specific campaigns and national public health activities. To add a button or badge to your website, social networking profile or blog, simply copy and paste the code assigned to the image. Buttons and badges can help promote activities and increase awareness about health topics, and can be produced fairly easily and with little resources. CDC provides guidance and best practices on creating buttons and badges. (The link is listed in Resource section below.)

What are Buttons and Badges?

Buttons are graphic elements that usually include an image, a short call-to-action message, and a link for more information. They are often created to be shared, and include HTML code that allows them to be posted on a website.

Badges are also small graphic images that include a message and link to a web page. However, badges are often posted on an individual's social network profile or personal blog to show support for or affiliation with a cause or issue, and may include messages that show a personal action was taken (e.g. "I got tested." instead of "Get tested.") (Centers for Disease Control and Prevention, 2010a).

Six Simple Tips to Creating Great Campaign Images:

- Create graphics in several sizes, including standard ad sizes, and sizes developed specifically for your web pages.
- 2. Write a simple, yet catchy, health message that stands alone.
- 3. Use colorful and attractive images or designs that can be viewed on a number of sites and in a number of sizes.
- 4. Be sure to include a URL on the image and a link back to your website.
- 5. Promote the use of the images and review metrics to learn more about the effectiveness of your efforts.
- 6. Review CDC's Guidelines and Best Practices for Developing Buttons and Badges listed in the resource section below for more tips.

Resources:

CDC Button and Badge Gallery: http://www.cdc.gov/socialmedia/tools/buttonsgallery.html

- CDC Button and Badge Overview Page: http://www.cdc.gov/SocialMedia/Tools/ButtonsBadges.html
- CDC Guidelines and Best Practices for Developing Buttons and Badges: http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/buttonbadge.pdf.

Image Sharing





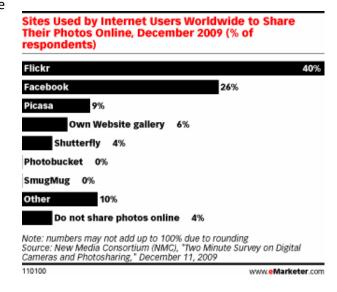
Image sharing provides value to health communication activities by providing public health images that users can easily place on websites, blogs or other social media sites. As content creation

What is Image Sharing?

Image sharing involves posting images (photos, artwork, etc.) to public websites where they can be viewed, tagged, categorized, and even used by others. (Centers for Disease Control and Prevention, 2010b).

continues to improve on social media channels and on the internet as a whole, the need for fresh graphics and engaging content also increases. The widespread use of mobile phones with cameras makes it easier than ever to take photos. Mobile applications for photos and exploding participation in social networks like Facebook and Twitter have contributed to a surge in the popularity of online photo sharing. More than 100 million photos a day are uploaded to Facebook (Odio, S. 2011). Organizations can take advantage of this trend by providing visual images to fans and followers that show public health "in action", reinforce health messages, or simply present existing information in a new, visually interesting format.

There are several online communities that provide image sharing services. For instance, Flickr and Shutterfly provide a platform for posting images that can be organized around health topics. CDC shares images on both Flickr and the Public Health Image Library (PHIL), which offer an organized, universal gateway to CDC pictures. These can be used for reference, teaching, presentations and public health messages that partners can access and post on their sites. Likewise, CDC's photostream on Flickr includes public health photos and graphics developed for public health events that users



can comment on and share. Partners can also easily and cost-effectively create accounts on a number of available sites to produce, upload and share images.

A Few Simple Tips to Image Sharing Success:

- When establishing your account, use a name that will resonate with your users and follows naming
 and branding guidelines. It is also a good idea to include information on your profile page about your
 agency or program. If possible, also include a link back to your organization's website to drive traffic to
 your website.
- Think about your audience when choosing images. What kinds of images will be most helpful to them
 or best portray your communication objectives? If relevant, ensure your images are culturallyappropriate.
- Be thoughtful about selecting, naming, describing and tagging images. Do you need to post all of the images available or will posting only the best images serve the viewers better?
- Consider engaging online communities and encouraging viewers to add tags, notes, and comments.

Image Sharing Resources:

- CDC Image Sharing Page: http://www.cdc.gov/SocialMedia/Tools/ImageSharing.html
- Peace Corps Flickr: http://www.flickr.com/search/?w=all&q=peace+corps&m=text
- American Red Cross 2010: http://www.flickr.com/photos/americanredcross
- Flickr Best Practices in Government:
 https://forum.webcontent.gov/resource/resmgr/flickr best practices guide.pdf

Content Syndication



CDC syndicates a wide range of health-related topics of content on CDC.gov,

including seasonal flu, chronic disease and emergency preparedness information. Many topic web pages are also available in Spanish. Hundreds of partners already utilize content syndication to provide accurate web content that is automatically updated on their websites when it is updated on CDC.gov. Content Syndication is an easy and cost-free way for public health partners to provide credible, timely

What is Content Syndication?

Content Syndication is a technical application that enables partner organizations to display current CDC health and safety content and allows visitors to the public health partner's website access to CDC content without leaving the partner website. This tool, provided by CDC, allows the communication and management of the latest science-based information online. (Centers for Disease Control and Prevention, 2010b). Prevention. 2010c).

and science-based health information to their audiences. Partners can self-register to quickly search available content topics at CDC.gov, select from the online catalog, and download syndication code.

In addition to improved reach and access to health information, content syndication also helps enable citizens to create innovative health applications by providing easier access to government tools, data and information. CDC began content syndication in November 2007, and has found it to be a successful way to provide vital government information to the public and collaborate with valuable public health partners.

Resources:

- CDC Content Syndication Registration System: http://tools.cdc.gov/register/
- CDC Content Syndication Usage Guidelines: http://tools.cdc.gov/register/tos.

RSS Feeds



CDC RSS feeds enable partners to personalize the health information they receive by subscribing to the topics of greatest interest to

them. Public health partners also have the option of posting the feeds on their websites to allow their users access to up-to-date CDC information. More than 25 unique RSS feeds are available from CDC, including Spanish-language feeds.

What is an RSS Feed?

RSS stands for **Really Simple Syndication**. RSS feeds provide an easy way to stay updated on information that is important to you and helps reduce the time it takes to browse or search for new information on web sites. RSS feeds provide updated news headlines, blog posts or selected website content.

To utilize this content, you will need an RSS-enabled browser or

an RSS news reader to subscribe. These tools help you view the content and will let you know when there is new content. You can also use content from RSS feeds by adding a feed to your website or social media space. Adding an RSS feed to a page is a rapid, low-cost way to provide up-to-date health news to your viewers. Likewise, creating an RSS feed of your content is not very difficult technically, and it can be a low-risk way to start working in social media.

Resources:

- CDC Overview and Subscription Sign-up for RSS Feeds: Subscribe to a CDC RSS Feed: http://www2c.cdc.gov/podcasts/rss.asp
- AIDS.gov Putting the Simple in Real Simple Syndication (RSS Feeds): http://blog.aids.gov/2008/01/rss-feed.html
- WebContent.gov RSS Feeds Page: http://www.usa.gov/webcontent/technology/rss.shtml
- WhyRSS.com Really Simple Guide to RSS: http://www.whyrss.com/
- Common Craft RSS in Plain English provides a brief overview of RSS feeds: http://www.commoncraft.com/rss_plain_english

Podcasts



Podcasts help to deliver information in a convenient and enjoyable format, and can be played "on the

go" from an iPod, mobile device, or other portable player. Podcasts can also be viewed on websites. CDC provides podcasts to increase access to health messages and deliver health information in a convenient format.

What is a Podcast?

A podcast is a digital audio or video file that can be saved for playback on a portable media device or computer. The term "podcast" refers to both the actual content of the media file and the method by which the content is syndicated.

Partners have access to CDC's extensive library of podcasts that includes topics directed to clinicians, healthcare workers, public health practitioners and the general public. Partners can easily download podcasts from CDC.gov, post podcasts to their web page, provide links to the CDC podcast page from their website and subscribe to podcasts series. Partners can also create their own podcasts relatively easily and without much investment in technical resources.

Who Uses Podcasts?

Podcast use continues to increase as more people use devices with digital audio playing capability. According to Aribtron and Edison Research, 45% of US consumers have listened to a podcast in 2011.

Awareness and Usage of Audio Podcasts Among US Consumers, 2008-2011

% of respondents				
	2008	2009	2010	2011
Aware of audio podcasts	37%	43%	45%	45%
Ever listened to an audio podcast	18%	22%	23%	25%
Listened to an audio podcast in the past month	9%	11%	12%	12%
Note: ages 12+ Source: Arbitron and Edison Research, "The Infi Digital Platforms," April 5, 2011	nite Dia	l 2011:	Naviga	ting
126620		www	eMarke	ter.com

Examples of Health-Related Podcasts

A number of healthcare organizations provide podcasts.

- The World Health Organization provides public health information and related news from around the world:
 - http://www.who.int/mediacentre/multimedia/podcasts/en/
- Seattle Children's Hospital's podcast on flu vaccinations for children: http://www.seattlechildrens.org/videos/flu-vaccinations-for-children/
- PKIDs also provides a number of podcasts for Parents of Kids with Infectious Diseases: http://itunes.apple.com/us/podcast/id218493791

CDC provides hundreds of podcasts, including a number on a variety of health and safety topics:
 http://www2c.cdc.gov/podcasts/browse.asp

Eight Best Practices for Podcast Production

- **1. Define the purpose**. Identify the target audience, the main health messages and communication goal prior to developing content.
- 2. Create audience relevant content. Designing a podcast with a particular audience in mind requires careful consideration of content. Podcasts designed to reach health professionals may contain medical terminology whereas those for the general public should make use of common terms such as chicken pox instead of varicella. This is particularly important with podcasts, since listeners or viewers may have downloaded the podcast for listening or viewing on a personal device and not able to access the internet or a dictionary.
- 3. Consider length. There is no hard and fast rule that dictates the recommended length of a podcast. It is helpful to consider the communication goals and the target audience. Some messages can be effectively communicated in five or ten minutes while other topics may require a longer podcast to explain adequately.
- **4. Develop and post transcript.** Post podcast transcript online.
- **5. Develop a release schedule and post frequently.** Podcasts that are part of a series with frequent releases have a broader listener base.
- **6. Utilize cross-marketing.** To increase exposure for podcast episodes or series, leverage a variety of existing and no- or low-cost channels. External podcast directories allow podcast registration, and users can search by keyword and category. Consider adding a button on other web pages directing people to the Podcast URL.
- 7. **Provide additional information.** Direct the listener to more information or resources related to the topic by fully articulating all URLs mentioned in the podcast. This will be useful for many users, but keep in mind that other people may listen to podcasts while they are away from a computer, or are unable to write, so the content should stand alone without additional information.
- **8. Connect with the audience.** Careful selection of a host ensures a connection with the audience. Often a Q&A format will help listeners to better understand the topic by providing natural breaks during the discussion.

9. Evaluate your podcasting activities. For example, you can collect basic information on how many times each podcast is downloaded or played. Additionally, if user comments and ratings are a part of the podcasting system, you can track them to guide future podcast development.

Podcasting Resources:

- To review CDC's podcast library or subscribe, please see http://www2c.cdc.gov/podcasts
- Podcast FAQ a website committed to providing everything you need to know about podcasting, has a
 wealth of information on podcasting: http://www.podcastfaq.com/
- WebContent.gov Podcast Page: http://www.usa.gov/webcontent/technology/podcasting.shtml

Online Video Sharing



Online video sharing can be a great way to exchange information,

What is Online Video Sharing?

Online video sharing can be used by partners to share tailored health communication messages. Online video sites, such as YouTube, MSN and Yahoo have emerged as popular and powerful video sharing sites. (Centers for Disease Control and Prevention, 2010d)

share personal stories and engage audiences. Video sharing is becoming immensely popular because anyone with internet access can upload, view, share and comment on video footage. Using video sharing sites like YouTube or Google Video help provide an engaging experience for consumers to view and share health and safety information. As online video viewing continues to increase on both traditional and mobile sites, these sources can be a powerful mechanism to assist you in distributing current and accurate science and health messages.

CDC's official YouTube channel, *CDC Streaming Health*, contains CDC-produced videos on a variety of health topics. With an internet connection, partners can upload, view, share and comment on video footage. Partners can also easily upload a number of CDC-produced videos to their websites or other social media spaces, like a blog or Facebook page. Similarly, you can easily create a channel on a video sharing site to disseminate videos created by your organization.

Who Uses Video-sharing Sites?

As of May 2001, 71% of online adults are using video-sharing sites. The largest percentage of users is in the 18 – 29 age group. However, there have been steady increases over the last year in viewing among internet users in the 30 – 49 and over 50 age groups as well (Moore, 2011). YouTube is the most popular video sharing site, with more than 490 million unique monthly visitors worldwide in February 2011, up from 81.4 million in May 2009 (Mashable, 2011). As the use of mobile devices continues to climb, so has the popularity of the YouTube mobile site, which receives 100 million views a day (YouTube, 2011).

Examples of Health-related Video-sharing Sites

- CDC-TV Video Sharing site: www.cdc.gov/CDCTV
- CDC YouTube Channel: http://www.youtube.com/CDCstreaminghealth
- Mayo Clinic: http://www.youtube.com/user/mayoclinic?blend=1&ob=5
- Immunization Action Coalition: http://www.youtube.com/user/ImmunizationAction
- Juvenile Diabetes Foundation: http://www.youtube.com/user/jdrfonline
- eHowHealth: http://www.youtube.com/user/ehowhealth

Six Best Practices for Online Video Production

- Prepare content that is appropriate for your target audience. Content should be engaging, visually pleasing and presented at a level appropriate for the target audience. The use of jargon, technical information or detailed charts and graphs should be avoided. Simple, easy-to-follow "stories" with a single message or call to action are more likely to become "viral;" a term referring to when viewers voluntarily share links or embed videos on their own websites, blogs and social networking profiles.
- 2. Keep the videos short. Check the technical requirements for the site being utilized for video posting. The majority of video sharing sites will have time limits on the length of the video. CDC data show that many users start dropping off after three minutes.
- **3. Create a promotional plan.** Your plan should include a list of video-sharing site(s) where you will post the video, partners to help you disseminate it, the web pages on your site where the video will be embedded, and other social spaces like Facebook, Twitter or MySpace where you can post and promote it.
- **4. Be mindful of technical production issues.** Smaller organizations or health departments may choose to utilize internal staff to shoot videos. To provide good quality video, follow these guidelines.

- Use a tripod to stabilize the camera.
- For indoor video, use lighting that makes the subject look natural and avoid harsh shadows. For outdoor video, make sure the lighting is adequate and avoid bright sunshine.
- Frame your shots to highlight the subject and avoid unnecessary zooming.
- Use a plug-in microphone instead of the camera's built-in microphone to ensure sound quality. Additional information on shooting online videos can be found in the links below.
- Reelse, The Online Video Marketing Guide: http://www.reelseo.com/web-video-production-tips-quality/
- Desktop-Video-Guide.com: http://www.desktop-video-guide.com/shoot-video.html
- **5. Choose music appropriately.** Music you use should be purposeful and thoughtful, and complement the intended message. Unless you plan to pay for music, choose selections that are copyright free.
- **6. Include a URL for more information.** Include a specific URL at the end of the video to direct the user to additional information on the topic.
- **7. Evaluate.** As with all communications activities, evaluation is important. Depending on the site utilized for video posting, metrics may be provided to assist with the evaluation. For instance, you may be able to measure or track,
 - The number of times each video has been viewed,
 - Viewer ratings and comments,
 - · Channel subscribers, and
 - Points in the video when viewership drops off.

Video Sharing Resources:

- YouTube http://www.youtube.com/
- Google Video http://video.google.com/
- Yahoo! video http://video.yahoo.com/
- For more information on online video at CDC, please see:
 http://www.cdc.gov/SocialMedia/Tools/OnlineVideo.html
- See CDC YouTube and Online Video Guidelines and Best Practice for additional information: http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/onlinevideo.pdf

Widgets



Made popular by Google, Facebook, Widgetbox, and now cell phone operating systems such as Andriod; widgets provide interactive information and fresh content with minimal user maintenance. The content in a widget can be updated automatically, ensuring access to up-to-date and credible health and safety content. CDC provides a

What is a Widget?

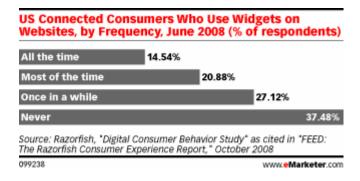
A widget is an application that can be utilized by partners to display featured health content directly on their desktop, website or social media site. Widgets can also generally be shared with friends. (Centers for Disease Control and Prevention, 2010e).

number of widgets (in both English and Spanish) on a variety of health topics, including H1N1 and seasonal flu, smoking and tobacco use, an adult BMI calculator and everyday health tips. These and many other widgets can easily be added to partner pages or social media sites to provide an interactive experience, fresh content, and engagement with important health topics. To add a CDC widget to your site, locate a widget at www.cdc.gov/widgets and click on "Share." A new screen will display the html code for that particular widget.

Simply cut and paste the html code into your web page.

Who Uses Widgets?

According to an October 2008 Razorfish report, 55% of "connected consumers" (or those who report using a broadband connection to the internet and



the use of digital media) add widgets on their desktops, and 62% use them on sites such as Facebook and iGoogle.

How Do I Start Developing a Widget?

There are programs online that allow anyone to create a widget. However, if you want a customized one, you will most likely need to hire someone with specific technical, usability, and design skills to develop it.

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Examples of Health-related Widgets

CDC.gov: http://www.cdc.gov/widgets/

Healthfinder.gov: http://www.healthfinder.gov/widgets/

• NIH.gov: http://www.nih.gov/widgets.htm

 3-DPregnancy.com's Baby & Pregnancy Countdown Ticker: http://3dpregnancy.parentsconnect.com/widget/

Widget Resources

• CDC Widgets Overview Page: http://www.cdc.gov/widgets/

eCards





eCards are an effective and inexpensive way

to reach individuals with personalized and targeted health information. People can use eCards to send a personal message as well as health messages to their friends and family. An eCard often opens with a colorful greeting, and includes a message that encourages healthy living, promotes safe activities, or celebrates a health- and safety-related event.

What is an eCard?

eCards are electronic greeting cards that are sent to people's email accounts. CDC developed Health-e-Cards to encourage healthy behavior by communicating programs, products and information to individuals.

CDC provides a large collection of Health-e-Cards with more than 200 cards on a wide range of health topics. eCards can be directed to clinicians, healthcare workers, public health practitioners and the general public. Partners can utilize CDC's eCards to send personal health messages to their audiences. Partners also have the option to post thumbnail images and links to CDC eCards on their websites, connecting their users to the CDC eCard application where individuals can personalize and send cards to their friends, family and co-workers. eCards can also be sent out by organizations to large groups of members to communicate public health events.

Who Uses eCards?

eCards are popular with Americans of all ages. According to the Greeting Card Association, an estimated 500 million e-cards are sent each year worldwide (Greeting Card Association, 2010).

Examples of Health-related eCards

- CDC.gov: http://www.cdc.gov/eCards/
- Healthfinder.gov: http://www.healthfinder.gov/ecards/cards.aspx?jscript=1
- Tobacco Free California: http://www.tobaccofreeca.com/ecards.html
- InSpot STD Notification eCards: http://www.inspot.org/TellThem/tabid/58/language/en-us/Default.aspx
- Discovery Health: http://health.discovery.com/tools/ecards/ecards.html
- WorldwideHealth: http://www.worldwidehealth.com/ecards.php

Six Tips for Developing eCards

- Define the purpose. Identify the target audience, the key health messages and communication goals prior to developing content.
- 2. Create content relevant to your audience. Designing an eCard with a particular audience in mind requires careful consideration of content. There are two audiences to consider when developing eCards—the sender and the recipient. eCards should contain messaging and images considered appropriate for sending and receiving by friends, family members or colleagues.
- **3. Include URL for more information.** Include a specific URL inside the eCard to direct the recipient to additional information on the topic. Once links are determined, develop a short text description that is a call to action for the hyperlinked text.
- **4. Utilize cross-marketing.** To increase exposure for new eCards, leverage a variety of existing and no-cost channels, including your website and other social media channels.
- **5. Evaluate.** As with all communications activities, evaluation is important. Depending on your web analytics software, metrics may be available to assist with the evaluation. For instance, you may be able to measure or track:
 - The number of times each eCard has been sent and viewed.
 - The number of clickthroughs from the eCard to your website.

6. Review the CDC's *Guidelines and Best Practices for Developing eCards* listed in the resource section below for more tips.

eCard Resources:

- CDC Health-e-Cards: http://www2c.cdc.gov/ecards/
- CDC Guidelines and Best Practices for Developing eCards:
 http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/ecards.pdf

Mobile Health





What is Mobile Health?

mHealth or mobile health is a term used to describe the practice of using mobile technologies – mobile phones, text messaging services or applications – to support public health and medicine.

Mobile technologies offer remarkable opportunities for improving the health, safety and preparedness of people in the U.S. and around the world. Because of its portability, affordability and availability, the potential of mobile technologies for sharing health information and collecting disease/health data represents a tremendous opportunity (Centers for Disease Control and Prevention, 2010).

The three unique characteristics of mobile applications are:

- Simplicity -- making the application suitable for regularly scheduled tasks using a minimum number of steps/clicks,
- 2) Immediacy -- providing the capability to instantly deliver pertinent content to users who carry phones with them literally on a constant basis, and
- 3) Context -- delivering services relevant to a customer's location and circumstances. (Johnson, C. and Wannemacher, P. 2011).

Mobile technologies include the following:

- Mobile websites A website that has been optimized for mobile viewing. The number of mobile websites has grown consistently over the years due to smartphone technologies, mobile browsers and cellular networks. To simplify the user interface, mobile sites are optimized for viewing on smaller screens by displaying less content that is more targeted and have minimal number of user controls for easy navigation.
- Downloadable applications An application that runs on smartphones and other mobile devices that makes optimum use of the handset's native functions, such as the camera, gyroscope, offline usage and push notifications.

Examples of health-related applications include calorie and exercise trackers, prescription refill reminders and healthy dining options.

Developing a mobile app involves a considerable amount of technical expertise and resources.

CDC has released an eCard mobile application, based on the popular eCard website, which allows users to view and send electronic greeting cards to family and friends. A large collection of eCards are available on health topics such as asthma, diabetes, heart health and emergency preparedness and response. Applications are typically platform specific and certain ones may only be available for iPhones, Andriods or other specific platforms.



er CDC's FLU APP

CDC Video Contest

Hepatitis Awareness Returning Home

Cancer Research

• SMS text messaging: This is the initial and simplest mobile delivery method. SMS messages are the most common type of mobile data service. Text messages, limited to 160 characters, can be utilized to send daily health tips, smoking cessation intervention messages and medication reminders. MMS, multimedia messaging service, which is an enhancement to SMS text messaging, allows the transmission of images, audio and video files along with the text message. Text messaging is quickly becoming a vital tool for the delivery of health information and engaging users to improve their health. Recent research indicates that interventions delivered by text messages have positive short-term behavioral outcomes. Important

features of SMS delivery include dialogue initiation, tailoring of content, and interactivity (Fjeldsoe, Marshall & Miller, 2009).

Who uses mobile technologies?

The overall use of mobile technologies is on the rise:

- In 2010, 96% of U.S. adult population owns a mobile device (CTIA, 2010).
- Text message volume continues to increase; in 2010, more than 2.1 trillion short text messages (SMS) were sent up from 81 billion in 2005. CTIA, 2010).
- 72% of cell phone owners use their phone to send or receive text messages (Smith, A., 2010).
- Lower income teens (ages 12 17) are higher users of text messaging and the mobile internet than
 their more affluent counterparts. Of the teens without home internet access, 20% use their mobile
 devices to access the internet (Smith, A., 2010).
- In 2010, 9% of cell phone users have a health app on their phone to help them track or manage their health. The highest percentage was individuals in the 18 29 age group (Fox, S. 2011).

One third of Americans (35%) own smartphones. Groups that have higher than average adoption rates include those well educated and affluent, individuals under the age of 45 and African-Americans and Latinos.

The swift adoption of smartphones has lead to the increase of "cell mostly" internet users. Some 87% of smartphone owners access the internet or email on their device. (Smith, A., 2011)

Smartphone ownership and internet use summary

% of smartphone owners, cell owners and all adults who...

	% of <u>smartphone</u> <u>owners</u> who	% of <u>all cell</u> <u>owners</u> who	% of <u>all adults</u> who
Own a smartphone	100%	42%	35%
Use the internet or email on smartphone	87	36	30
Use smartphone to go online on a typical day	68	28	23
Go online <u>mostly</u> using smartphone	25	10	8

Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

How do I get started using text messaging?

Text messaging systems are usually delivered through contracts with outside vendors. In order to begin sending text messages, an organization must first lease a shortcode, which is typically a 5-6 digit number. There are two types of shortcodes, random and vanity. Vanity shortcodes typically cost more and are codes that spell a specific phrase and/or are easy to remember. Examples of vanity shortcodes include:

• CDC: 87000

COKE: 2653

ABCTV: 22288

Obama: 62262

Yahoo: 92466

Shortcodes may be obtained through a mobile service provider or directly through Neustar (the company which leases all shortcodes). Mobile service providers may offer the option of a "shared" or "dedicated" shortcode. A shared shortcode may be used by multiple clients and typically costs less than a dedicated shortcode which is assigned to only one client.

Once a shortcode is obtained, an organization must identify a set of keywords that users can text into the shortcode in order to sign-up for the text messaging program.

Once subscribers opt-into a program, an organization can send messages to the mobile service provider, which then sends the messages to a mobile aggregator. An SMS aggregator maintains direct connections to the major wireless carriers. They deliver their customers' text messages, which they *aggregate*, through their gateways. An aggregator allows you to go to one place to connect to all of the wireless carriers. The mobile carriers then distribute the message to your subscribers.

There are various factors that can impact the cost of implementing a mobile text messaging campaign including length of program, number of subscribers, number of messages sent and the custom features of the program.

Examples of mHealth

Mobile websites:

- CDC's mobile website delivers content designed to be viewed on a mobile device: http://m.cdc.gov
- AIDS.gov mobile site: http://m.aids.gov

Text messaging:

- CDC's text messaging campaign allows subscribers to receive timely health information:
 http://www.cdc.gov/mobile/textmessaging
- Text4baby, an educational program of the National Healthy Mothers, Healthy Babies Coalition, allows subscribers to receive weekly messages on pregnancy and infant care in English and Spanish: http://text4baby.org/

Downloadable applications:

- Trixie Trakcker, an app that allows parents to track their baby's sleep and eating schedules:
 http://www.apple.com/webapps/utilities/trixietracker.html
- Pocket First Aid and CPR, an American Heart Association app that provides the latest up-to-date emergency information including videos and the ability to store medical information: http://itunes.apple.com/us/app/pocket-first-aid-cpr-from/id294351164?mt=8

Text Messaging Best Practices

- 1. **Keep messages short**. Text messages should be short and concise. The entire message should be less than 160 characters, including spaces, and punctuation; and any branding or links to additional information.
- 2. Make messages engaging. Write relevant, timely, clear and actionable messages. Try to begin each message with an interesting fact or question so that users will be more likely to open the text message to read the rest of the information.
- **3.** Make content readable. Content should not exceed an 8th grade reading level.
- **4. Use abbreviations sparingly.** Because text messages have a character limit, it is acceptable to use abbreviations, but only when they are easily understood and do not change the meaning of the message.
- Limit Latin characters. Depending on the mobile carrier, non-Latin or accented letters do not always work,

- 6. Provide access to additional information. Include your organization name in the text so users know who is sending the message. Include a way for users to follow up or respond to the message, such as a phone number and/or URL to a mobile website. Links to traditional websites should be avoided. All phone numbers should be formatted so the user can click-to-call the number automatically from their cell phone. All URLs should include the "http://" as not all phones work without this.
- **7. Include opt-out options.** Text messages may also include information on how to opt-out of the text messaging program. These characters also need to be figured into the maximum length of 160 characters.
- **8. Promote your text messaging efforts.** Create a promotion plan that includes promoting on mobile sites, social media and other spaces.
- **9. Evaluate your efforts**. Evaluation can be accomplished with surveys and metrics reviews. Standard survey message testing can look at quality, clarity, the strength of the message, as well as the effectiveness of the message. When evaluating text messaging activities, there are many ways to evaluate the effort:
 - Collect basic metrics on how many users are signed up for the program and how many users take part in interactive messaging efforts.
 - If possible, collect demographic data about users such as age, sex, geographic location.
 - Survey users to gather information on what types of messages they prefer, and use information to shape messages for your text messaging program.
 - When possible, use surveys (via text messaging or by sending users to a web survey) to evaluate changes in knowledge, attitude, and behavior.

Mobile Resources

- CDC Text Messaging Guidance: http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/textmessages.pdf
- CTIA The Wireless Association: http://www.ctia.org/aboutCTIA/
- Mobile Marketing Association: http://mmaglobal.com/main
- Mobile Health News: http://mobihealthnews.com/
- Fierce Mobile Healthcare http://www.fiercemobilehealthcare.com/ Weekly newsletter that provides the latest news on the rapidly evolving mobile healthcare environment.
- Pew Internet & American Life Project's Mobile Access, 2010:
 http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx

Twitter



Twitter has become an important tool for connecting people interested in specific health and safety information. Twitter's information network has grown at a fast pace, with 460,000 daily sign-ups and over 200 million registered users (Twitter, 2011). CDC uses Twitter to health and safety information in real time with people interested in CDC's health topics. Twitter is more than a platform to disseminate information; it also provides opportunities to listen to conversations and gather information in real-time. Twitter's search engine (http://search.twitter.com) is a great tool for monitoring conversations on any given topic on Twitter – it is generally limited to the past two weeks of public tweets.

What is a Twitter?

Twitter is an information network made up of 140character messages called tweets. It is used by millions of people, organizations, and businesses to discover and share new information. Twitter users subscribe to receive tweets by following an account. Followers receive messages in their timeline that includes a feed of all the accounts they have subscribed to. These short, easy to read, public messages make Twitter a powerful, real-time way of communicating (Twitter, 2011). These messages can be submitted by a variety of means, including text messages, mobile websites, or the website hosting the microblog.

Who uses Twitter?

Individuals, organizations (e.g. American Cancer Society), corporations (e.g. CNN, Microsoft) and federal agencies (e.g. National Institutes of Health and CDC) use Twitter.

Twitter use continues to grow since its introduction in 2006. As of May 2011, 13% of online adults use Twitter. The largest population of Twitter users is in the 18 – 29 age bracket, followed by the 30 – 49 age bracket. The number of 30 -49 year olds who use Twitter has doubled since late 2010. High adoption rates for nonwhites continue. On a typical day, one in ten African American internet users visit Twitter, double the rate for Latinos and nearly four times the rate for whites. As mobile technologies continue to improve so does user access. Among cell phone-owning Twitter users, 54% access the service through their mobile phone (Smith, A., 2011).

Who uses Twitter?

% of internet users within each group who use Twitter

All internet users	13%
Gender	
Men	14
Women	11
Age	
18-29	18*
30-49	14*
50-64	8
65+	6
Race/Ethnicity	
White, non-Hispanic	9
Black, non-Hispanic	25*
Hispanic	19*
Household Income	
Less than \$30,000	12
\$30,000-\$49,999	15
\$50,000-\$74,999	12
\$75,000+	15
Education level	
High school grad	8
Some college	12
College+	16*
Geographic location	
Urban	15*
Suburban	14*
Rural	7

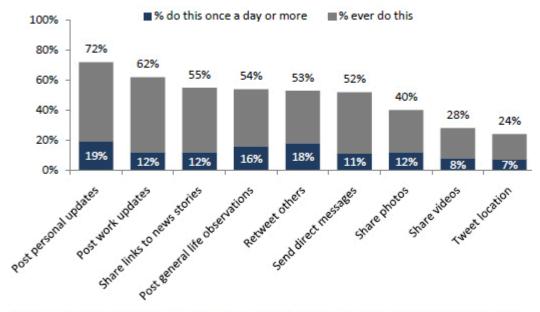
Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish. * indicates statistically significant difference between rows.

What type of activities do Twitter users participate in?

A variety of activities are performed by Twitter users including sharing links, videos, photos and retweeting material posted by others.

Comparing the frequency of Twitter activities

% of Twitter users who use the site to do the following:



Source: The Pew Research Center's Internet & American Life Project, November 3-24, 2010 Post-Election Tracking Survey. n=2,257 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

Since its inception as a simple message posting service, users have expanded their use to include the following Twitter events:

- Twitter Chat: Scheduled events allowing organizations or programs to communicate with their followers. Chats include free flowing discussions, question and answer sessions and the dissemination of information to a large audience through sharing or retweeting of content.
- Twitterview: This scheduled event is a type of interview in which the interviewer and the interviewee are limited to short-from responses of 140 characters per message.
- Twitter Town Hall: A scheduled forum that allows followers to submit questions on a specific topic.
 Responses can be delivered through live tweets, video or live stream.
- Live Tweeting: Tweeting live from an event to highlight key points of a presentation, audience engagement and comments, and play by play moments. Live tweeting is often utilized for conferences to allow followers not attending to follow the events.

Examples of Twitter Profiles Addressing Public Health

• CDC_eHealth: http://twitter.com/CDC_eHealth

• CDCgov: http://twitter.com/cdcgov

• AIDS.gov: http://twitter.com/AIDSgov

Minority Health: http://twitter.com/MinorityHealth

CA IZ Coalition: http://www.twitter.com/lmmunizeca

• CBC Health (Canada): http://twitter.com/CBCHealth

Twitter Best Practices

1. Account set-up recommendations - Profile Name, Image and Biography

- a. Profile name Each Twitter account has a unique profile name that describes the subject matter of the account, name of the organization or contains a keyword describing the nature of the organization.
 (e.g. CDC_eHealth, FluGov). The profile name should be short and concise (maximum 15 characters).
- b. Biography The biography is a 160-character description of the profile. This biographical statement should be the first post from a new profile.
- c. Image A logo or graphic that represents your organization or agency.
- 2. Keep content short and simple. CDC recommends writing tweets of 120 characters so that messages can easily be retweeted, (the practice of posting another user's tweet), without editing. If a tweet contains the maximum 140 characters, users who want to share your message by retweeting will need to edit the message to reduce the character count.
- **3. Provide more information with a shortened URL.** If possible, provide a link back to your main website for more information. You can save space by using URLs that are shortened. Several websites are available that can help you: http://tinyurl.com or http://tinyurl.com or http://tinyurl.com or http://tinyurl.com or http://tinyurl.com or http://is.gd.
- **4. Promote your Twitter profile.** Provide links to your Twitter profile on other communications materials that you have prepared, including both traditional and social media, and work with other Twitter profiles to build your audience base strategically.
- 5. Keep followers engaged. Setting a regular posting schedule will help engage followers.
- **6. Post other relevant content.** Develop a strategy for retweeting posts from partners and followers.
- **7. Search Twitter for comments about your organization or health topic**: You can use search twitter.com to monitor Twitter. You can then "listen" to conversations about important health concerns, find messages about your organization and monitor how audiences are responding to messages.

- **8. Evaluate your efforts.** Track your efforts and regularly review the number of followers, updates, retweets and mentions in Twitter. There are also a number of ways to monitor increased traffic to your website, as well as the "mentions" outside of Twitter on blogs, websites or articles. With regular monitoring of Twitter efforts, it is easy to track increased traffic to your website generated by click-throughs of your links, changes in your followers, and the number of retweets of your messages. Many evaluation metrics for Twitter can be collected for little or no cost. When evaluating Twitter activities, consider the following:
 - Track click-throughs from your links: Website analytics software (such as Omniture Site Catalyst or Google Analytics), allows you to track increases in website traffic from Twitter by measuring how many followers click through from Twitter links back to your site.
 - Analyze influence on Twitter: Account users may keep track of how many other users are "following"
 them and how many updates they have published over time. Retweets, @replies (or "at replies"), and
 other mentions of his or her Twitter username are tracked on a user's profile. An RSS feed can also be
 set up to track these search results.
 - Analyze followers: Because Twitter is web-based, it may be possible to design an online survey
 (through a tool such as SurveyMonkey) to measure user satisfaction, increases in knowledge due to
 your profile, or changes in behavior or attitudes.

Twitter Resources:

- CDC.gov Social Media Tools: Twitter: http://www.cdc.gov/SocialMedia/Tools/MicroBlogs.html
- CDC Social Media Tools Guidance on Twitter:
 http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/microblogging.pdf
- WebContent.gov Twitter Best Practices:
 http://www.usa.gov/webcontent/technology/microblogging/twitter.shtml

Blogs



CDC often wants to share content in a way that allows readers to leave comments and engage in discussion. A blog can be used to discuss a topic that

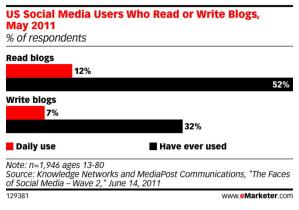
What is a Blog?

Blogs, or web logs, are regularly updated online journals that almost anyone with an internet connection can use. Some blogs target a small audience, while others boast a readership comparable to national newspapers. They may have only one author or a team of regular authors, but most blogs share a similar format in that the entries are posted in a reverse chronological order and may allow readers to comment on posts (Centers for Disease Control and Prevention, 2010j). Blogs often focus on a specific topic or type of topic.

may be too complex for other channels and to give your topic or program a more personal and engaging presence than a website allows.

Who is blogging?

Once a popular activity for online teens and the 18 – 33 age group, this population has experienced a modest decline in blogging, a trend that may be related to the quickly growing popularity of social network sites. The older age groups, however, have seen an increase. The rate of blogging for all online



adults rose from 11 percent in 2008 to 14 percent in 2010.

"Overall, bloggers are a highly educated and affluent group. Nearly half of all bloggers we surveyed have earned a graduate degree, and the majority have a household income of \$75,000 per year or higher" (Sussman, 2009). When considering influence, mommy bloggers are very

powerful. Close to 71% of US female internet users turned to them for useful information and 52% read them for product recommendations (eMarketer, 2010).

Health-related Blogging Examples:

- School Kids Healthcare Blog: (http://www.schoolkidshealthcareblog.com/) This blog targets school nurses, healthcare and safety professionals, and campus medical staff allowing them to connect with their peers, discuss current events, and share stories and challenges (School Kids Health Care Blog, 2010).
- <u>Shot of Prevention</u>: (http://shotofprevention.com/) This is a community blog where individuals, parents, medical professionals and others can gather to discuss questions and current events regarding immunizations (Shot of Prevention Blog, 2010).
- Consumer Reports Health Blog:
 (http://blogs.consumerreports.org/health/healthy_living/)
 This blog focuses on a variety of consumer health topics including nutrition, treatment options, and prevention tips.
- CDC's Public Health Matters Blog: http://blogs.cdc.gov/publichealthmatters/ This blog shares information on preparing for and responding to public health events.
- Massachusetts Department of Health: (http://publichealth.blog.state.ma.us/) This blog
 focusing on health topics in the state, including Spanish language posts by the Director
 of Ethnic Media Engagement.

Blogging Best Practices:

- Observe the blogosphere. Before beginning a blog of your own, read other blogs that deal
 with similar topics to learn what works well and who the "influencers" are in the topic area.
 One can find blogs through the blog search engines such as Technorati
 (www.technorati.com).
- 2. Provide links. Support posts with links to other web pages that provide context to your post.
- **3. Keep posts as short as possible.** Provide enough information to support main points, but be succinct. Shorter posts (a couple of paragraphs) are more likely to be read in their entirety than longer posts. However, if an issue is particularly complex, it may require a longer post.

- **4. Make headlines attention-grabbing.** Just like a newspaper article, a blog post's title should capture a reader's attention and summarize the main point of the post. Look to national newspapers to get ideas for writing headlines.
- Include numbered or bulleted lists. List structured information in an easily digestible format.
- **6. Make posts easy to scan.** Insert sub-headings where applicable and make sentences and headlines short and to the point. "Chunking" information makes it easier for important information to stand out.
- **7. Keep a consistent style.** Readers like to know what to expect. Find a writing style that works for the intended audience and maintain it throughout each blog post. Since this can be difficult when working with a team of authors, appoint one person to review all posts for style and consistency.
- **8. Use keywords strategically.** Think about what keywords people would use to search for a post and include them in the body text and headers. Make sure the keyword placement is natural and does not seem out of place.
- **9. Edit your post.** Good writing is in the editing. Before hitting the submit button, re-read the post and edit for brevity and clarity.
- 10. Promote your blog. Have a promotion plan in place before launching a blog. If Twitter is a part of your overall communication strategy, it can be a good place to promote a new post. Sending direct email updates to partners and those who have shown interest in the organization can also be a great way to promote a blog.
- 11. Determine how to handle comments. Develop a comment policy that covers the response to inappropriate, derogatory or off topic comments, along with a protocol to handle inquiries and incorrect information. Refer to <u>CDC's Health Out Loud Blog Comment Policy</u> and a Health Out Loud blog posting for additional information.
- **12.** Make use of web analytics tools. Two popular web analytics tools to consider using are listed below:
 - Google Analytics http://www.google.com/analytics/
 - Yahoo! Web Analytics http://web.analytics.yahoo.com/
 It is advised to review your policy and privacy implications before utilizing any analytic tools.
- **13. Evaluate your efforts.** Using a web analytics tool allows you to determine the number of people who have visited the page in a particular time period. It is also important to track the

number of comments received on each blog post. It is especially useful to look for patterns in blog posts that draw the most comments and determine if the length, topic, or time of day you posted the blog draws more reader engagement. Utilizing official blogger software allows a blog to be catalogued by blog search engines, such as Technorati (www.technorati.com). Technorati also assigns an "authority" number to blogs it catalogues. The "authority" refers to the number of websites linking to a blog in the previous six months. A higher "authority" means that more people are linking to a blog, which may help to show the blog's popularity and, in some cases, credibility. Technorati also allows a user to search for other blogs that may be linking to his or her blog.

Blogger Resources:

- For more information on blog activities at CDC, please see:
 http://www.cdc.gov/SocialMedia/Tools/Blogs.html
- Technorati (http://www.technorati.com/search)
- Google Blog Search (http://blogsearch.google.com/)
- Blogger: http://www.blogger.com
- Common Craft video "Blogs in Plain English": http://www.commoncraft.com/blogs
- Probloggers "Starting Out in Blogging from Scratch":
 http://www.problogger.net/archives/2008/03/18/if-you-were-starting-out-in-blogging-from-scratch-how-would-you-promote-your-blog/

Facebook



What is a Social Networking Site?

Social networking sites are online communities where people can interact with friends, family, coworkers, acquaintances, and others with similar interests. Most social networking sites provide multiple ways for their users to interact such as chat, email, video, voice chat, filesharing, blogging, and discussion groups.

The use of social networking sites continues to grow. Sites are used by millions of people every day to interact and engage with other users, to share content and to learn. Social networking sites provide an immediate and personal way to deliver program, products and information. The most popular social networking site is Facebook, which has over 750 million users. The average user creates 90 pieces of content every month, and 50% of active users log on to the site on any given day (Facebook, 2011). Other popular sites include Linkedin, MySpace and Foursquare. There are also several niche social networking sites that target audiences, such as moms and physicians, or address topics such as travel and health issues.

Who Uses Social Networking Sites?

There has been a tremendous growth in social networking site use since 2008. According to a 2011 Pew Internet survey, nearly 50% of adults or 59% of internet users, use at least one social networking site. This is up from 26% of adults or 34% of internet users in 2008. There has been a pronounced increase in social networking site use among those over 35. Due to this increase, the average age of adult social networking site users has shifted from 33 in 2008 to 38 in 2010. Close to 92% of social network participants use Facebook (Hampton, K., Goulet, L., Rainie, L. & Purcell, K., 2011). Additional information on US Facebook users:

- US users total 151.8 million
- 55% female
- 50% in the 18 34 age group (<u>www.checkfacebook.com</u>, 2011)
- Caucasian users make up 78% of users while 9% are African Americans and 9% are Hispanic

 35% of users have a college or advanced degree (Hampton, K., Goulet, L., Rainie, L. & Purcell, K., 2011)

Examples of Social Networking Sites Addressing Public Health Topics

- Colorado Children's Immunization Coalition: http://www.facebook.com/ImmunizeCOKids
- American Cancer Society:
 http://www.facebook.com/AmericanCancerSociety?v=wall&ref=ts
- AIDS.gov MySpace: http://www.myspace.com/aidsgov
- Nebraska Department of Health and Human Services:
 http://www.facebook.com/pages/Lincoln-NE/Nebraska-Department-of-Health-and-Human-Services/340846025779?v=wall&ref=ts#
- Alabama Department of Public Health: http://www.facebook.com/pages/Montgomery-al/Alabama-Department-of-Public-Health-ADPH/235001560006
- CaringBridge: http://www.facebook.com/CaringBridge
- PatientsLikeMe: http://www.patientslikeme.com/

Facebook Best Practices

The information below is an overview of Facebook Best Practices. An additional resource, available to obtain guidance covering detailed recommendations and best practices, can be found at http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/FacebookGuidelines.pdf

 Become familiar with other Facebook sites. There are several public health-related social network sites available with different targets, purposes and functions. Visiting other sites will help gain an understanding of the participants, the culture and the functionality.

It is important to note the difference between a Facebook page and an individual Facebook profile. Facebook pages are utilized by organizations and businesses while Facebook profiles are for individuals. Unlike profiles, pages are moderated by page administrators who logon to post content or monitor comments and they do not receive notifications when users take action.

- 2. Consider the overall communications strategy and objectives. Before launching a page, make sure social networking activities mesh with the overall communication strategy and objectives. Once a target audience has been identified, it is essential to determine if using a social networking site such as Facebook is an appropriate channel. Facebook is a public platform and, in most cases, reaches the general public. Specifically targeted Facebook pages can be developed to address healthcare providers, public health professionals and others. CDC Parents are the Key to Safe Teen Drivers is an example of a Facebook page that targets parents of teenagers.
- **3. Be thoughtful about resources.** Ensure that adequate resources (time and staff) are available to support the ongoing maintenance of the page in order to keep content fresh and fans engaged.
- 4. Provide engaging posts and communication material on the site. Incorporate videos, quizzes, widgets, games, applications, images and other materials to actively and repeatedly engage users.
- 5. Create a comment policy. Develop a policy that covers the response to inappropriate or derogatory comments. Refer to CDC's Social Networking Comment Policy for an example: http://www.cdc.gov/SocialMedia/Tools/CommentPolicy.html.
- 6. Give careful consideration to associations with partner content. It is possible to display "featured likes", "like" or comment on partner status updates, and to share partner content. When considering promotion of partner page or engagement with their content, it is important to determine the advantages of the activity to ensure your organization's brand benefits by association with particular organizations, agencies or groups. Additional information can be found in CDC's Facebook Guideline and Best Practices.
- **7. Collect and store comments.** Develop a system to archive comments.
- **8. Develop a promotion plan.** Establish a promotion plan before launching the page; encourage fans to share and cross-promote using other social media channels and web pages.
- **9. Develop an evaluation plan.** Have an evaluation and metrics plan in place prior to launch to determine if efforts are successful. For example, it will be helpful to:

- Determine how participation will be measured. Evaluation can include simple measures of user engagement (e.g. How many followers/fans/friends does the account have? How many users commented on recent posts?)
- Take advantage of the analytic packages available on the social networking sites. These can be utilized to determine the number of people ("fans") participating in the activity and to observe how users engage with the site. For example, Facebook Insights are available to users (administrators) who maintain a page for an organization. Facebook Insights allow the administrator to see demographic information and fan interactions with the page over time.
- Consider tracking the amount of traffic being driven to a website from an organization's
 Facebook page. If using an analytics tool for a website (such as Google Analytics or
 WebTrends), that tool will show the source of traffic to a page, and the number of users
 who are visitors coming via a link on the Facebook page.
- Plan to evaluate with an online survey (through a tool such as SurveyMonkey) to measure user satisfaction, increases in knowledge due to the social networking page, or changes in behavior or attitudes.

Social Networking Resources:

- CDC's Facebook Guidance and Best Practices:
 http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/FacebookGuidelines.pdf
- Facebook for Government: http://www.facebook.com/government
- Common Craft video "Social Networks in Plain English":
 http://www.commoncraft.com/video-social-networking
- WebContent.gov Social Networks and Government:
 http://www.usa.gov/webcontent/technology/social_networks.shtml
- GovLoop: http://www.govloop.com/ (A government community)

SOCIAL MEDIA CAMPAIGN EXAMPLE

In the last few years, CDC has developed a number of integrated social media campaigns, including campaigns for the CDC Vital Signs, novel H1N1 flu event, the *Salmonella* Typhimurium outbreak associated with peanut butter and peanut-containing products, as well as annual seasonal influenza vaccination campaigns. Each campaign integrates innovative social media products with research-driven strategies to ensure that CDC protects and promotes the health of diverse audiences. CDC Vital Signs is a monthly program that focuses on a single, important public health topic and provides a "call to action" for different audiences. This example details the use of social media tools to highlight and complement the release of Vital Signs information as part of an integrated communications campaign for the Cardiovascular Health topic.

Vital Signs Campaign

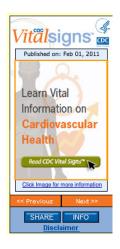
During the first year of the CDC Vital Signs program, social media tools were developed to provide consumers and partners with credible, science-based information. The comprehensive set of tools was developed and utilized to encourage participation and to achieve the overall goal of communicating key messages that can influence health decisions. By utilizing multiple formats to disseminate messages, users had the option to participate based on their knowledge, level of access, and engagement with social media.

A variety of embeddable tools were made available to partners to facilitate the sharing and promotion of Vital Signs information. Tools with portable content, such as widgets and online video, allow users to easily share messages and become health advocates.

Buttons, or graphics utilized for online promotion of campaigns, were created specifically for partners and organizations to post on their websites to inform visitors about important public health topics or direct them to additional information.









Widgets, small portable applications, were created for users to add to blogs, social network profiles, and web pages to allow the sharing of important health information. The Vital Signs widget is updated on a monthly basis to reflect the latest topic. In addition to the Vital Signs widget, specific topic widgets have been created, such as the displayed Salt Intake Quiz widget.

The use of **Online Video** sharing sites allows for the dissemination of tailored health education and health communication messages, and allows users to upload, view, share and comment on

posted videos. The CDC YouTube channel, CDCStreamingHealth, has a total of 193 videos that cover a variety of public health topics including HIV, asthma and diabetes. For the Cardiovascular Health Vital Signs release, the Salt Matters video, featuring CDC Director Dr. Thomas Frieden, was released. This video highlights the risks of unseen salt in processed foods, the resulting



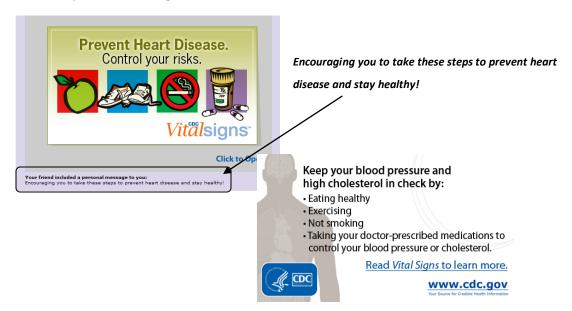
increased risk of high blood pressure, as well as offering insight on how to make better nutritional choices.

Audio **Podcasts**, titled the Vital Minute, were produced for each Vital Signs topic. Podcasts are available for downloading through the CDC.gov website and through the iTunes store.



In addition to easily downloadable tools, CDC also offers tools that incorporate social content such as eCards and text messages.

Electronic greeting cards, or **eCards**, were developed to allow users to send health messages to friends, family and co-workers. The example here displays the receipt of an eCard, encouraging individuals to become aware of and to control their risk for heart disease. eCards allow senders to insert personal messages:



The CDC **Text Messaging** campaign was launched in September 2009. The program provides three health messages a week to more than 14,000 subscribers about important CDC information on health-related topics such as nutrition tips, H1N1 flu, seasonal flu and weather-related messages. For the monthly Vital Signs launch, two messages were sent the week of the launch to alert the subscriber about the report's release, to share information, and to link to the Vital Signs Health and Safety feature on the CDC mobile website.





Button promoting text message campaign

Sample text

The use of **Twitter** allows CDC the opportunity to communicate rapidly with a wide audience of engaged users. CDC utilizes the CDC.gov and eHealth profiles to promote the monthly launch of Vital Signs topics. The CDC.gov profile is used to share information on the report, important statistics and prevention tips. The CDC eHealth profile promotes social media tools related to the topic such as videos, eCards and podcasts. These two Twitter profiles have a collective following of 191,000 users.



Through CDC's **Content Syndication application**, Vital Signs content is made available to partners to display CDC on their own websites. Content syndication provides a streamlined process for disseminating current, credible and automatically updated Vital Signs content in real-time. More than 350 public health partners – including state and local health departments, hospitals, universities and federal agencies – have implemented content syndication on their websites, and syndicated content has been viewed more than 500,000 times.



CDC content on CDC.gov

Syndicated content on partner website

To engage users and facilitate interactive communication, CDC utilizes the social networking site, **Facebook** to share information and to expand reach. The CDC Facebook page, launched in May 2009 at the start of the H1N1 response, has seen a steady increase in numbers of fans; this total is nearly 147,000 (July 2011).

A tab was created specifically for the Vital Signs campaign. It highlights each health topic to draw users to a landing page. The CDC Facebook page is used to share important Vital Signs information, provide social media tools, such as badges, widgets and eCards for users to download and share, embed online videos, and link to the CDC.gov Vital Signs site for additional



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ADDITIONAL SOCIAL MEDIA RESOURCES

Because of the dynamic nature of social media and emerging technologies, new information and research is being released at a rapid pace. The following list of selected resources provides a sampling of additional information on social media:

- Mashable http://mashable.com/social-media/ The world's largest blog focused exclusively on Web 2.0 and Social Media news.
- Pew Internet & American Life Project http://www.pewinternet.org/ One of seven projects that make up the Pew Research Center, the Project is a "fact tank" providing information on how internet and technology trends, issues, and attitudes are shaping the U.S. and the world.
- SiteAnalytics http://www.compete.com/about/ A web analytic company powered by the largest pool of online consumer behavior data in the industry.
- Quantcast http://www.quantcast.com/ Site providing detailed audience profile information.
- Technorati- http://technorati.com/ A blog search engine.
- HubSpot http://www.hubspot.com/products/ Leading marketing analytic company that provides social media information, training and webinars on a periodic basis.
- Nielson Online http://en-us.nielsen.com/ The world's leading marketing and media information company measuring audience and demographic information.
- comScore http://www.comscore.com/ A source of digital marketing intelligence providing online audience measurement information.
- CTIA The Wireless Association http://www.ctia.org/ An international nonprofit membership organization that represents the wireless communications industry.
- Fierce Mobile Healthcare http://www.fiercemobilehealthcare.com/ Weekly newsletter that provides the latest news on the rapidly evolving mobile healthcare environment.

SOCIAL MEDIA COMMUNICATIONS STRATEGY WORKSHEET

Use this worksheet to help you strategize about your audience, and the potential social media tools and channels you may want to use for your campaign or communication activity.

1. Target Audience

Describe the person(s) you want to reach with your communication; be as specific as possible. More than one audience may be listed. Include a primary and secondary (influencers) audience if appropriate. (Examples: Mothers of children younger than two years old living in Atlanta, Pediatricians practicing in Nevada.) ١.

II.

III.

2. Determine your objective

What do you want to achieve through your social media outreach and communication? This could include something you want your target audience to do as a direct result of experiencing the communication. Objectives may include (but are not limited to) the following:

- a) Provide information
- Highlight a campaign
- Encourage a health behavior
- Reinforce health messages
- Encourage interaction
- Obtain feedback/exchange ideas
- Collaborate with partners

(Example: Increase awareness of immunization campaign.)

١.

II.

III.

b) Restate your objectives in SMART terms:

Specific – state in concrete, detailed and well-defined terms – What exactly are we going to do for whom?

<u>Measurable</u> – should be quantifiable and the source of measurement has been identified.

<u>Attainable/Achievable</u> – can the objective be achieved in the proposed time frame with the resources available?

Relevant/Realistic – is the objective directly related to the overarching communication goal from your communication plan?

Time-bound – have deadlines been set?

(Example: By December 2012 (time-bound), there will be a 5% increase (measureable) in recognition of the immunization campaign name (specific), as measured through surveying, by moms of children under two in the Metro Atlanta area (specific).)

II.

III.

Additional information on writing *SMART* objectives can be found at http://www.cdc.gov/healthyyouth/evaluation/pdf/brief3b.pdf and http://www.cdc.gov/dhdsp/programs/nhdsp program/evaluation guides/smart object ives.htm

3. Define Audience Communication Needs

People access information in various ways, at different times of the day, and for different reasons. If possible, define your audience needs by using market research and other data. You can use the following resources:

- Pew Internet and American Life Project: http://www.pewinternet.org/
- Tools of Change Planning Guide: http://www.toolsofchange.com/en/planning-guide/
 (This is a non-CDC site. This link does not imply endorsement.)

Describe your audiences and their health information needs.

4. Goal Integration

- a) Describe how your social media objectives support your organization's mission and/or overall communications plan.
- b) How does it support other online or offline components what events (either national/state/local) present communication opportunities?

5. Message Development

Develop the key messages based on the target audience and objectives identified. (Example: for moms of young children to encourage late season flu vaccination, "It's not too late to vaccinate.")

١.

II.

III.

6. Resources and Capacity

Determine who in your organization will be responsible for implementation, and determine the number of hours they can allocate for content creation and maintenance.

7. Identify Social Media Tools

Determine what tools will effectively reach your target audience. Match the needs of the target audience with the tools that best support your objectives and resources. (Example: Because Facebook has a large population of young women who have children, is free, and requires minimal technical expertise, it may be a good tool for a mom-centered program while only requiring a small amount of funding for social media activities.)

I.

II.

III.

8. Define Activities

Based on all of the elements above, list the specific activities you will undertake to reach your communication goals and objectives. (Example: Develop and promote Facebook fan page for diabetes education program.)

1.

II.

III.

9. Identify your key partners and their roles and responsibilities

10. Define Success for Evaluation

What are your measures of success? Your measures of success may be different depending on your goals and objectives.

11. Evaluate

Create an evaluation plan; see the Social Media Evaluation Plan for more information.

SOCIAL MEDIA EVALUATION WORKSHEET

This document focuses on developing a basic structure for evaluating social media activities. For more in-depth evaluation planning, please refer to the resources in this document.

Step 1: Developing the Model

Using the activities and objectives determined in the social media communications strategy document, consider the following for each activity in your program. Note that there may be multiple inputs, outputs, and outcomes for each activity.

- 1. What are the inputs, or resources (both tangible and intangible), that need to be in place for the activities to happen?
- 2. What are the outputs of each of those activities? In other words, what will be the resulting products (usually tangible)?
- 3. What are the expected outcomes of the activities and outputs (usually intangible)? That is, what are the results you hope to see? (Example: Increased awareness of vaccination campaign.) If possible, break outcomes into short-term and long-term. The outcomes may be very similar to (or the same as) the objectives you developed in the Social Media Communication Strategy Worksheet.

Inputs	Activities	Outputs	Outcomes	
			Short-term	Long-term
Example: Messages developed by communication specialists; personnel; internet access	Example: Using Twitter to promote vaccination campaign to moms of young children	Example: Tweets posted; tweets retweeted by others; followers of Twitter profile	Example: Increased awareness of vaccination campaign	Example: Increased likelihood of vaccinating children
internet access	Cilidren	Twitter profile		

Step 2: Developing the Questions

Considering the inputs, outputs, and outcomes identified above, think about how these can be measured and what data can be collected.

Inputs:

How can each of your inputs be measured, counted, or otherwise evaluated? For example, if one of the inputs is "messages developed by communication specialists," what elements of this input can and should be measured?

Example evaluation question: How many audience-tested messages have been developed?

Evaluation question 1:

Evaluation question 2:

Evaluation question 3:

Outputs:

How can the products of your activities be measured? For social media activities, these questions may utilize web analytics, such as click-throughs and page views, or they could include numbers of friends, followers, or messages posted.

Example evaluation questions: To evaluate outputs of a Twitter account: How many messages did we post (during a set timeframe)? How many of these messages were retweeted? How many followers did we acquire?

Evaluation question 1:

Evaluation question 2:

Evaluation question 3:

Outcomes:

Outcomes can often be harder to measure than outputs, but offer great value. The evaluation questions for your outcomes will likely come from the *SMART* objectives you developed earlier. For example, if your objective was to increase by 5% the number of target audience members who were aware of your campaign, your evaluation question would reflect this objective.

Example evaluation question: What percentage of moms of children under the age of two in the Metro Atlanta area have heard of the vaccination campaign?

Evaluation question 1:

Evaluation question 2:

Evaluation question 3:

Resources:

http://www.cdc.gov/eval/resources.htm

http://www.cdc.gov/vaccines/programs/progeval/default.htm

http://www.cdc.gov/dhdsp/programs/nhdsp_program/evaluation_guides/evaluation_plan.htm

W. K. Kellogg Foundation Logic Model Development Guide, available at

 $\underline{http://www.wkkf.org/knowledge-center/resources/2006/02/WK-Kellogg-Foundation-Logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-logic-log$

Model-Development-Guide.aspx

(This is a non-CDC site. This link does not imply endorsement.)

References

Centers for Disease Control and Prevention. (2009a). Social Media at CDC: Buttons and Badges.

Retrieved February 5, 2010, from

http://www.cdc.gov/SocialMedia/Tools/ButtonsBadges.html

Centers for Disease Control and Prevention. (2009b). Social Media at CDC: Image Sharing.

Retrieved February 5, 2010, from http://www.cdc.gov/socialmedia/tools/ImageSharing.html

Centers for Disease Control and Prevention. (2009c). Social Media at CDC: Content Syndication.

Retrieved February 5, 2010, from

http://www.cdc.gov/SocialMedia/Tools/ContentSyndication.html

Centers for Disease Control and Prevention. (2009d). Social Media at CDC: Online Video.

Retrieved January 27, 2010, from http://www.cdc.gov/SocialMedia/Tools/OnlineVideo.html

Centers for Disease Control and Prevention. (2009e). Social Media at CDC: Widgets. Retrieved

February 5, 2010, from http://www.cdc.gov/SocialMedia/Tools/Widgets.html

Check Facebook. 2011. Retrieved from July 14, 2011 at http://www.checkfacebook.com/

CTIA. (2011). Wireless Quick Facts. Retrieved July 13, 2011 from

http://www.ctia.org/media/industry_info/index.cfm/AID/10323.

eMarketer Digital Intelligence. (2010). Where to reach women online. Retrieved July 15, 2011

from http://totalaccess.emarketer.com/Article.aspx?R=1007826

Facebook. (2011). Statistics. Retrieved July 5, 2010, from

http://www.facebook.com/press/info.php?statistics

Fjeldsoe, B., Marshall, A., & Miller, Y. (2009). Behavior change interventions delivered by mobile

telephone short-message service. *American Journal of Preventive Medicine*, 36(2), 165-73.

Fox, S. (2011). The Social Life of Health Information, 2011. Retrieved July 7, 2011, from

http://www.pewinternet.org/Reports/2011/Social-Life-of-Health-Info.aspx.

- Hampton, K., Goulet, L., Rainie, L. & Purcell, K. (2011). *Social networking sites and our lives*.

 *Retrieved July 12,2011 from http://pewinternet.org/Reports/2011/Technology-and-social-networks/Part-2/Demographics.aspx..
- Horrigan, J. (2009). *Wireless Internet Use*. Retrieved February 5, 2010, from http://www.pewinternet.org/Reports/2009/12-Wireless-Internet-Use.aspx
- Johnson, C. and Wannemacher, P. (2011). *Mobile channel strategy: An overview*. Cambridge, MA: Forrester Research, Inc.
- Lenhart, A. (2009). *The Democratization of Social Networks*. Retrieved January 21, 2010, from http://www.pewinternet.org/Presentations/2009/41--The-Democratization-of-Online-Social-Networks.aspx
- Madden, M., & Jones, S. (2008). *Podcast downloading 2008*. Retrieved March 30, 2010, from http://www.pewinternet.org/Reports/2008/Podcast-Downloading-2008.aspx
- Mashable. (2011). 10 Fascinating YouTube Facts That May Surprise You. Retrieved July 11, 2011 from http://mashable.com/2011/02/19/youtube-facts/
- Moore, K. (2011). 70% of online adults now use videoOsharing sites. Retrieved July 29, 2011 from http://pewinternet.org/Reports/2011/Video-sharing-sites. Retrieved July 29, 2011
- Odio, S. (2011, July 1). *Making facebook photos better*. The Facebook Blog. Retrieved from http://blog.facebook.com/blog.php?post=403838582130
- School Kids Healthcare Blog. (2010). Retrieved January 28, 2010, from http://www.schoolkidshealthcareblog.com/
- Shot of Prevention Blog. (2010). Retrieved January 29, 2010, from http://shotofprevention.com/

```
Singel, R. (2010). Blogging peaks but reports of its death are exaggerated. Retrieved July 15, 2011 from http://www.wired.com/epicenter/2010/12/long-live-blogging/
```

Shot of Prevention Blog. (2010). Retrieved January 29, 2010, from http://shotofprevention.com/

Smith, A. (2010). Mobile Access, 2010. Retrieved July 13, 2011 from

http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx

Smith, A. (2011). *Smartphone adoption and usage*. Retrieved July 15, 2011 from http://www.pewinternet.org/Reports/2011/Smartphones.aspx

Smith, A. (2011). *Twitter Update, 2011*. Retrieved July 12, 2011 from

http://www.pewinternet.org/Reports/2011/Twitter-Update-2011/Main-Report/Main-Report.aspx

Sussman, M. (2009). *Technorati: State of the Blogosphere 2009, Day 1: Who are the Bloggers?*Retrieved February 8, 2010, from http://technorati.com/blogging/article/day-1-who-are-the-bloggers1/

YouTube. (2011). Statistics. Retrieved July 11, 2011 from http://www.youtube.com/t/press statistics.